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Graphic technology — Safety requirements for graphic technology equipment and systems

Part 1: General requirements

Technologie graphique — Exigences de sécurité pour les systèmes et l'équipement de technologie graphique —

Partie 1: Exigences générales

FDIS stage

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Foreword

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This document was prepared by Technical Committee ISO/TC 130, *Graphic technology,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 198, *Printing and paper machinery — Safety,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 12643–1:2009), which has been technically revised.

The main changes compared to the previous edition are as follows:

— in 5.3.2,in 5.3.2, the requirements for guards (fixed guards with hinges, inclusion of examples of fastening devices, e.g. rotary clamping closures, adaptation to ISO 13857:2019) have been revised;

— former 6.5.5 (interlocking with guard locking) has been deleted (related machine-specific requirements are provided in the subsequent parts of ISO 12643 series);

— in 5.3.6,5.3.6, the requirements for hold-to-run controls have been revised;

— in 5.3.8, the requirements for reel unwinding devices, rewinding devices and reel transport systems have been revised (monitoring of the chucking cones, adaptation of the requirements to smaller machinery, monitoring of the circumferential speed with regard to overwinding, area protection, protective devices at rewinding devices with manual or automatic reel change);

— in 5.3.10, the requirements for pile carrier movements at feeders and deliveries have been revised;

— in 5.4.2, the requirements for explosion and fire protection have been revised;

— in 5.4.8.2, the requirements for UV radiation to the cited EN 12198-1:2000+A1:2008 have been adapted: no distinction between UVA and UVB/UVC anymore, reference to effective UV radiation;

— a new subclause (5.4.10) about doctor blades has been added;

— in 5.7.2, information that touch sensitive control devices shall not be used for initiating safety functions has been clarified;

— in 5.7.2.2, colours for controls have been adapted;

— in 5.7.2.4.1.2, the comprehensive requirements for emergency stop devices have been replaced by reference to IEC 60204-1:2016+AMD1/AMD 1:2021 and ISO 13850:2015 (references to safety functions of IEC 61800-5-2:2016, e.g. STO);

— in 5.7.6, the requirements of ESPDs to IEC 61496-1:2020and2020 and IEC 61496-2:2020 has been adapted; likewise, the heights of the light beams for a 3-beam solution have been adapted;

— in 5.8, the requirements to fixed and portable control station have been adapted;

— in 5.10, the requirements for control systems has been revised:

  — the term "irreversible injuries" has been introduced;

  — an overview table of the performance levels defined in the document has been inserted;

— in Clause 6, detailed listings of the validation methods for all safeguarding measures has been added;

— in 8.3.1, the requirements for instruction handbook with regard to noise emission values and hearing protection have been amended;

— Annex AAnnex A has been revised and has been converted to a normative annex;

— the list of significant hazards has been moved to Annex B;Annex B;

— the noise comparison values in Annex DAnnex D has been added;

— a normative Annex FAnnex F on occurrence of a hazardous explosive atmosphere has been added;